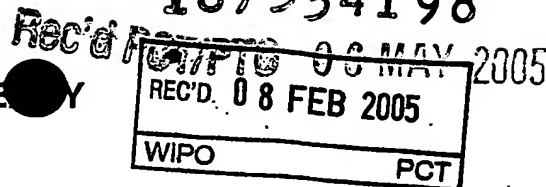


REPLACED BY  
ART 34 AMDT

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
(PCT Article 36 and Rule 70)





Applicant's or agent's file reference 758.1468WOU1	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US 03/35394	International filing date (day/month/year) 05.11.2003	Priority date (day/month/year) 06.11.2002
International Patent Classification (IPC) or both national classification and IPC B01D27/10		
Applicant DONALDSON COMPANY, INC. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:  
  

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand  04.06.2004	Date of completion of this report  04.02.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Sembritzki, T  Telephone No. +49 89 2399-8626  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US 03/35394

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-24 as originally filed

**Claims, Numbers**

1-13 received on 15.11.2004 with letter of 15.11.2004

**Drawings, Sheets**

1/18-18/18 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US 03/35394

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

**see separate sheet**

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	2-4,10-12
	No: Claims	1,5-9,13
Inventive step (IS)	Yes: Claims	
	No: Claims	1-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US 03/35394

Reference is made to the following documents:

- D1: US-A-6 051 144 (MCIPHERSON W ROGER ET AL) 18 April 2000 (2000-04-18)  
D2: US-A-5 378 254 (MALY EDWARD C ET AL) 3 January 1995 (1995-01-03)  
D3: US-A-4 721 563 (ROSAEN BORJE O) 26 January 1988 (1988-01-26)

**Item V:**

**1. Novelty and inventive step**

- 1.1 Document D1, which is considered to represent the closest prior art, discloses a cartridge filter comprising a filter head and a threadably mountable bowl wherein the filter media extends within the cartridge between an open first end cap and a second closed end cap (see D1, Fig. 1 and 2). The filter is designed for the use with a liquid and comprises sensor means for detecting whether a cartridge is installed or not (see D1, column 4, lines 3-53). D1 further discloses the use of a system comprising a transmitter, a receiver and an optical reflector which reflects a signal, transmitted from a corresponding transmitter on the base back to a suitable receiver on the base (see D1, column 21, lines 3-23). Accordingly, the subject-matter of independent claims 1 and 13 is not novel (Article 33(2) PCT), the same applies to the subject-matter of dependent claims 7, 8 and 9.
- 1.2 The subject-matter of the other dependent claims seems to contain only features which are either known from the prior art and which a skilled person could easily combine without any inventive skill, or which are the result of a normal design procedure followed by a skilled person (Article 33(3) PCT):

The purpose of the flexibility and moveability in dependent claims 3, 4 and 11 is, contrary to the requirements of Article 6 PCT, not clear from the definition of the present claims.

However, a flexible rib for enabling a contact between a filter and a housing in order to provide an electrical signal when a filter is installed is for example known from D2 (see D2, Fig. 6). A spring-loaded contact for the same purpose is for example known from D3 (see D3, Fig. 8). Since these two features have already been employed for the same purpose in a similar device which both disclose optical circuits, it would be obvious to the person skilled in the art, to apply these

**INTERNATIONAL PRELIMINARY  
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features with well known effect to a filter according to document D1, thereby arriving at the subject-matter of claims 3, 4 and 11.

The specification of the material (claim 2) does not seem to provide any unexpected effect and a radially symmetric or not symmetric reflecting surface (claims 5 and 6) are the only two possibilities.

The use of optic fibers, which is defined in dependent claims 10-12 seem to belong to the daily practice of a skilled person faced with a problem concerning an optical circuit. Thus, the subject-matter of the above claims does not seem to be able to justify the presence of an inventive step (Article 33(3) PCT).

1.3 The independent claims are not formulated in the two-part form according to Rule 6.3(b) PCT. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

1.4 The wording "...is/are incorporated by reference.." (see pages, 1, 2, 6 and 7) should be removed (Rule 9(1iv) PCT).

**2. Industrial application**

The industrial applicability is obvious.